UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,352	03/01/2004	Shashidhar Sathyanarayana	701470.4074	2406

34313 7590 08/01/2006

ORRICK, HERRINGTON & SUTCLIFFE, LLP
IP PROSECUTION DEPARTMENT
4 PARK PLAZA
SUITE 1600
IRVINE, CA 92614-2558

EXAMINER	
RAMIREZ, JOHN FERNANDO	
ART UNIT	**PAPER NUMBER**
3737	

DATE MAILED: 08/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/791,352	SATHYANARAYANA, SHASHIDHAR	
	Examiner	Art Unit	
	John F. Ramirez	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *April 3, 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *06/15/04; 06/27/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *IDS 02/13/06;*.

DETAILED ACTION

Response to Amendment

Applicant's arguments, filed April 3, 2006, with respect to the rejection(s) of claim(s) 1-26 under 102(b) have been fully considered and are persuasive. Therefore, the rejection of these claims have been withdrawn.

In relation to claims 27-31, a recitation with respect to the manner in which an apparatus is intended to be employed does not impose any structural limitation upon the claimed apparatus which differentiates it from a prior art reference disclosing the structural limitations of the claim. In re Pearson, 494 F.2d1399, 181 USPQ 641 (CCPA 1974); In re Yanush, 477 F.2d 958, 177 USPQ 705 (CCPA 1973); In re Finsterwalder, 436 F.2d 1028, 168 USPQ 530 (CCPA 1971); In re Casey, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); In re Otto, 312 F. 2d 937, 136 USPQ 458 (CCPA 1963) Ex parte Masham, 2 USPQ2d 1647 (BdPatApp & Inter 1987).

However, upon further consideration, a new rejection is made in view of newly found prior art reference in order to expedite the prosecution of this application.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 14-26 are rejected under 35 U.S.C. 101 because data structures not

claimed as embodied in computer-useable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-useable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

The subject matter in claim 14 specifically discloses the limitation "when executed by a processor", the term "when executed" expands the scope of the claim to include a program that does not require a computer per se, and therefore does not meet the requirements of statutory subject matter since the program by itself is not capable of causing a functional change in the computer. Additionally, the phrase "when executed" also implies the possibility of a program not capable of causing functional change in the computer when the instructions are not being executed. Therefore, such language could be construed as non-statutory subject matter.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 27-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Ferre et al. (US 5,967,980).

Ferre et al. shows in figures 5, 6 and 13 a system for mapping a lumen in a patient (column 5, lines 9-27; column 7, lines 12-40), including an imaging catheter adapted to capture a plurality of images of the lumen; a computer adapted to receive the captured plurality of images and create a map of the lumen by determining a position in three dimensions of each of the plurality of images using data contained in the images; and an output device adapted to output the map of the lumen, wherein the output device comprises a video display, wherein the computer determines the position of one of the plurality of images by comparing the image with a reference image whose position is known (col. 2, lines 41-63), wherein the system is initialized by arbitrarily defining the position of the reference image, wherein the position of the reference image is known based on a prior determination of the position by the computer (col. 6, lines 3-23).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being anticipated by Ferre et al. (US 5,967,980) in view of Sumanaweera et al. (6,159,152).

With respect to claims 1-26, Ferre et al., teaches all the structures as set forth except for mentioning specifically the steps of comparing the first and second images to determine first correlation loss data between the first and second images; and determining first position data for the second image, relative to the first image, using the first correlation loss data. Note (the term "correlation loss" is being defined to describe the local difference between the images being compared, see page 7, lines 22-24 in the specifications of application number 10/791352).

However, the steps of comparing the first and second images to determine first correlation loss data between the first and second images; and determining first position data for the second image, relative to the first image, using the first correlation loss data are considered conventional in the art as evidenced by the teachings of Sumanaweera et al.

The Sumanaweera et al. patent teaches the steps of comparing the first and second images to determine first correlation loss data between the first and second images; and determining first position data for the second image, relative to the first image, using the first correlation loss data.

Based on the above observations, for a person of ordinary skill in the art, modifying the method disclosed by Ferre et al., with the above discussed enhancements would have been considered obvious because such modifications would provide a more accurate image position data associated with the best correlation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John F. Ramirez whose telephone number is (571) 272-8685. The examiner can normally be reached on (Mon-Fri) 7:30 - 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JFR
07/07/06

BRIAN L. CASLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700